

## AGENDA

### UBC COMMISSION STRUCTURAL ADVISORY COMMITTEE

November 4, 2021 3:00 pm

*This agenda is subject to change up to 24 hours prior to the meeting.*

#### Anchor Location

Room 474  
Heber M Wells Building  
160 E 300 S  
Salt Lake City UT

#### Join with Google Meet

[meet.google.com/zij-etgt-env](https://meet.google.com/zij-etgt-env)

#### Join by phone

(US) +1 617-675-4444 PIN: 451 802 659 3397#

1. Roll call
2. Approve the minutes from the October 7, 2021 meeting
3. Review the proposals for Section 1613.1.1 & Section 1605
4. Final review of the structural portion of the IBC, IRC and IEBC

Next Scheduled Meeting: December 2, 2021

Please call Sharon at 530-6163 or email [ssmalley@utah.gov](mailto:ssmalley@utah.gov) if you do not plan on attending this meeting.



In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify Dave Taylor, ADA Coordinator, at least three working days prior to the meeting.

Division of Occupational and Professional Licensing, 160 East 300 South, Salt Lake City UT 84111, Phone 530-6628 or toll-free in Utah only 866-275-3675

# MINUTES

## UTAH UNIFORM BUILDING CODE COMMISSION STRUCTURAL ADVISORY COMMITTEE MEETING

October 7, 2021 3:00

CONVENED: 3:12

ADJOURNED 4:39

### STAFF:

Steve Duncombe, Bureau Manager  
Sharon Smalley, Board Secretary

### COMMITTEE MEMBERS:

Jeremy Achter  
Oliver Burt  
John Saunders  
Tyler Wright

Josh Blazzard, Commission Liaison  
Patrick Tomasino (excused)  
Brent Maxfield

### VISITORS:

### MINUTES

A motion was made by Oliver Burt to approve the minutes from the September 2, 2021 meeting as written. The motion was seconded by Tyler Wright and passed unanimously.

### CONTINUE WITH THE REVIEW OF THE STRUCTURAL PORTION OF THE 2021 IBC, IRC AND IEBC

The committee reviewed the current snow load amendments in the IBC. The committee decided that there needs to be a new amendment and that the current amendments for 1605.2 and 1605.3.1 need to be reworded. Tyler Wright volunteer to work up the verbiage for the amendments for the committee to review at the November meeting.

A motion was made by Jeremy Achter to change the current amendment for Section 1905.1.9 by deleting the words "Table 4.2.1" and replacing it with the words "Section 19.3.1.1" and to delete the letter "s" from the word "Conditions". The motion was seconded by Brent Maxfield and passed unanimously.

The committee will review the proposal for the snow load amendment and do a final review of the structural portion of the IBC, IRC, and IEBC so they can make their recommendation to the Uniform Building Code Commission at the

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Uniform Building Code Commission  
Structural Advisory Committee  
October 7, 2021

November meeting.

The meeting adjourned at 4:39.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*



Sharon Smalley &lt;ssmalley@utah.gov&gt;

## 2021 IBC Chapter 16 Amendments

1 message

Tyler Wright &lt;twright@dunn-se.com&gt;

Tue, Oct 26, 2021 at 11:58 AM

To: Jeremy Achter <jeremya@arwengineers.com>, Sharon Smalley <ssmalley@utah.gov>, John Saunders <johns@wc-3.com>, Josh Blazzard <joshb@arwengineers.com>, Oliver Burt <oburt@reaveley.com>, Patrick Tomasino <ptomasino@utah.gov>, Brent Maxfield <maxfieldba@churchofjesuschrist.org>, Stephen Duncombe <sduncombe@utah.gov>

All,

Attached is a document with a couple of proposed changes to the 2021 IBC Chapter 16 Utah Amendments. I am proposing that the current Amendment #2 in IBC Chapter 16 in be replaced as shown on the document and that Amendment #3 for the same chapter, but revised as noted in the document. These two amendments will take care of the gravity snow loads to be included with load combinations that include seismic.

Please review these prior to our next meeting so we can have a discussion on their approval.

For the mass of snow to be included as seismic mass, Amendment #9 of the same chapter already covers this. The references also align with the 2021 IBC and current ASCE 7, so no adjustment needs to be made in my opinion. See below for snip of Amendment #9.

(9) A new IBC, Section 1613.1.1, is added as follows: "1613.1.1 Effective Seismic Weight. In ASCE 12.7.2 and 12.14.8.1 as referenced in Section 1613.1, Definition of W, Item 4 is deleted and replaced with the following:

4. Where flat roof snow load,  $P_f$ , exceeds 30 psf, the snow load included in the effective seismic weight shall be calculated, in accordance with the following equation:  $W_s = (0.20 + 0.025(A-5))P_f \geq 0.20 P_f$ .

WHERE:

$W_s$  = Weight of snow to be included as effective seismic weight

$A$  = Elevation above sea level at the location of the structure (ft./1,000)

$P_f$  = Design roof snow load, psf.

For the purposes of this section, snow load shall be assumed uniform on the roof footprint without including the effects of drift or sliding. The Importance Factor,  $I$ , used in calculating  $P_f$  may be considered 1.0 for use in the formula for  $W_s$ ."

Thanks,

TYLER WRIGHT, SE

Chief Engineer

## Utah 2021 IBC Amendment Proposals

### Chapter 16 of IBC

Proposed that this amendment below would replace the current Amendment (2) for Chapter 16 of the IBC.

(2) In IBC, Section 1605.1, shall have an exception 4 added with the following: "4. ASCE 7-16 Section 2.3.6 Equation 6 shall be modified to  $1.2D + Ev + Eh + L + f_2S$  and  $1.2D + Ev + Emh + L + f_2S$  with  $f_2 = (0.20 + 0.025(A-5))$  where the roof snow load exceeds 30 pounds per square foot ( $1.44\text{kN/m}^2$ ). Where  $A$  = Elevation above sea level at the location of the structure (ft/1,000)."  $f_2 = 0$  for roof snow loads of 30 pounds per square foot ( $1.44\text{kN/m}^2$ ) or less.

Propose that Amendment (3) for Chapter 16 of IBC be revised as noted below.

(3) In IBC, Section 1605.1, Exception 2 ~~in each section~~ shall be deleted and replaced with the following: "2. Where the allowable stress design load combinations of ASCE 7 Section 2.4 are used, flat roof snow loads of 30 pounds per square foot ( $1.44\text{ kN/m}^2$ ) and roof live loads of 30 pounds per square foot ( $1.44\text{ kN/m}^2$ ) or less need not be combined with seismic loads. Where flat roof snow loads exceed 30 pounds per square foot ( $1.44\text{ kN/m}^2$ ), the snow loads may be reduced in accordance with the following in load combinations including both snow and seismic loads.  $S$  as calculated below, shall be combined with seismic loads.

$S = (0.20 + 0.025(A-5))P_f$  is greater than or equal to  $0.20P_f$ .

Where:

$S$  = Weight of snow to be used in combinations with seismic loads.

$A$  = Elevation above sea level at the location of the structure (ft/1,000)

$P_f$  = Design roof snow loads, psf.

For the purpose of this section, snow load shall be assumed uniform on the roof footprint without including the effects of drift or sliding. The Importance Factor,  $I$ , used in calculating  $P_f$  may be considered 1.0 for use in the formula for  $W_s$ .